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MEAN WELL

SWITCHING POWER SUPPLY

ISO-9001 CERTIFIED MANUFACTURER

SP-100 SERIES

Jameco Part Number 194802 (SP-100-12)

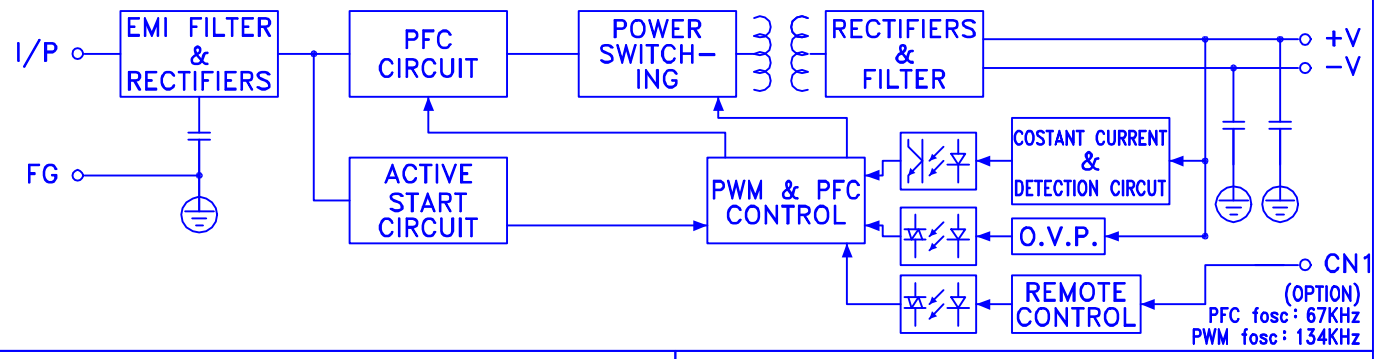
- .LOW COST, HIGH RELIABILITY
- .105°C OUTPUT CAPACITOR
- .INTERNATIONAL AC INPUT RANGE
- .HIGH EFFICIENCY, LOW WORKING TEMPERATURE
- .SOFT-START CIRCUIT, LIMITING AC SURGE CURRENT
- .SHORT CIRCUIT, OVERLOAD, OVER VOLTAGE PROTECTED
- .COMPACT SIZE, LIGHT WEIGHT
- .100% FULL LOAD BURN-IN TEST
- .BUILT IN EMI FILTER, LOW RIPPLE NOISE
- .BUILT IN PFC CIRCUIT
- .REMOTE CONTROL (OPTION)

MODEL / SPECIFICATION	SP-100 -3.3	SP-100 -5	SP-100 -7.5	SP-100 -12	SP-100 -13.5	SP-100 -15	SP-100 -24	SP-100 -27	SP-100 -48
DC OUTPUT VOLTAGE	3.3V	5V	7.5V	12V	13.5V	15V	24V	27V	48V
OUTPUT V. TOLERANCE	±2%	±2%	±2%	±2%	±2%	±2%	±1%	±1%	±1%
OUTPUT RATED CURRENT	20A	20A	13.5A	8.5A	7.5A	6.7A	4.2A	3.8A	2.1A
OUTPUT CURRENT	0-20A	0-20A	0-13.5A	0-8.5A	0-7.5A	0-6.7A	0-4.2A	0-3.8A	0-2.1A
RIPPLE & NOISE	100mV	100mV	100mV	100mV	100mV	100mV	150mV	150mV	250mV
LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
LOAD REGULATION	±1%	±1%	±1%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
RATED OUTPUT POWER	66W	100W	101.25W	102W	101.25W	100.5W	100.8W	102.6W	100.8W
EFFICIENCY	70%	76%	78%	80%	80%	82%	84%	83%	82%
DC VOLTAGE ADJ.	+10,-5%								
INPUT VOLTAGE RANGE	85~264VAC 47~63Hz 120~370VDC								
AC CURRENT	1.3A/115V 0.75A/230V 3.3V: 1A/115V 0.6A/230V								
INRUSH CURRENT	COLD START 40A/230V								
LEAKAGE CURRENT	<2mA/240VAC								
OVERLOAD PROTECTION	105~150% TYPE:CONSTANT CURRENT LIMITING RESET:AUTO RECOVERY								
OVER VOLTAGE PROTECTION	110%~135% TYPE:SHUTDOWN RESET:RE POWER ON								
TEMP. COEFFICIENT	±0.05% / °C (0~50°C)								
SETUP, RISE, HOLD UP TIME	600ms, 30ms, 20ms								
POWER FACTOR	PF>0.93/230VAC, PF>0.98/115VAC								
REMOTE CONTROL (OPTION)	CN1:3V-15VDC POWER ON, <3VDC POWER OFF								
VIBRATION	10~500Hz, 2G 10min./1cycle, PERIOD FOR 60min. EACH AXES								
WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC								
ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:500VDC / 100M Ohms								
WORKING TEMP., HUMIDITY	-10°C~+60°C(REFER TO OUTPUT DERATING CURVE), 20%~90% RH								
STORAGE TEMP., HUMIDITY	-20°C~+85°C, 10%~95% RH								
DIMENSION	179*99*45mm (L*W*H) CASE:915A								
WEIGHT	600gs								
SAFETY STANDARDS	UL1950, TUV EN60950 APPROVED								
EMC STANDARDS	CISPR22 (EN55022) CLASS B, EN61000-4-2,3,4,5,6,8,11; ENV50204, EN61000-3-2,-3 VERIFICATION								

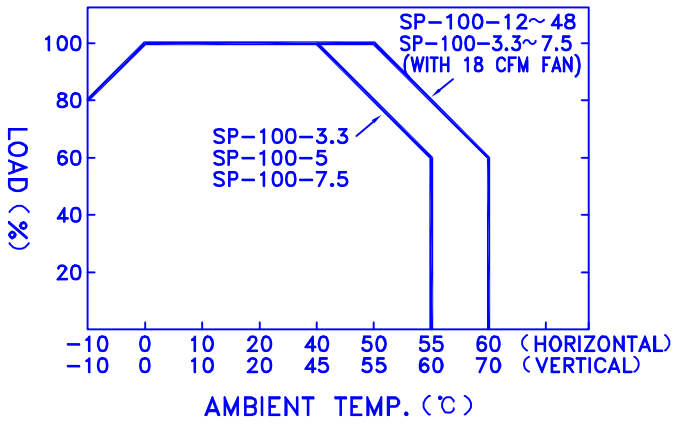
NOTE :
1. ALL PARAMETERS ARE SPECIFIED AT 230VAC INPUT, RATED LOAD, 25°C AMBIENT.
2. TOLERANCE GINCLUDE SET UP TOLERANCE, LINE REGULATION, LOAD REGULATION.
3. RIPPLE & NOISE ARE MEASURED AT 20MHz BY USING A 12" TWISTED PAIR TERMINATED WITH A 0.1uF & 47uF CAPACITOR.
4. LINE REGULATION IS MEASURED FROM LOW LINE TO HIGH LINE AT RATED LOAD.

2002-04-02

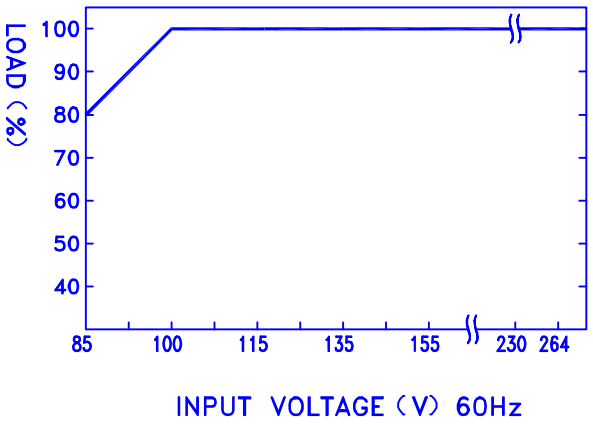
BLOCK DIAGRAM



OUTPUT DERATING VS Ta



OUTPUT DERATING VS INPUT VOLTAGE



DIMENSION (mm)

- ☒ CASE : 915A
- ☒ TERMINAL PIN NO. ASSIGNMENT
  - ☒ PIN 1,2 : AC INPUT
  - ☒ PIN 3 : FG ⏚
  - ☒ PIN 4,5 : DC OUTPUT -V
  - ☒ PIN 6,7 : DC OUTPUT +V
  - ☒ CN1 : REMOTE CONTROL (OPTION) (JST S2B-XH COMPATIBLE)